

REMARKS

Applicant respectfully requests reconsideration of this application, and reconsideration of the Office Action dated June 15, 2004. Upon entry of this Amendment, claims 3 and 4 will remain pending in this application. New claims 8 and 9 are added, and are supported by the specification and the original claims (i.e. claim 7). No new matter is incorporated by this paper.

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Claim 3 is rejected under 35 U.S.C. § 103(a) as purportedly obvious based on Freund et al. (U.S. Pat. No. 6,205,994) and Turner (U.S. Pat. No. 5,820,006) in view of Piper (U.S. Pat. No. 5,803,797). Applicant respectfully traverses.

Claim 3 concerns a method of cutting CSP substrates. The method includes the following features:

- a) the mounting tape has plural mounting position indications for indicating the mounting position of each of the CSP substrates, and
- b) the mounting position of each of the CSP substrates on the frame is recognized by viewing by eye the mounting position indications and is manually input to the storage means.

Due to the above described features, at the time of imaging the surface of each of the CSP substrates (i.e. S1, S2 and S3) the chuck and the precision imaging means are relatively and automatically brought to required positions based on the mounting position data of each of the CSP substrates stored in the storage means. This is possible once the steps with features a) and b) above have been carried out. Thus, the surface of each of the CSP substrates successively can be brought to its required position with respect to the precision imaging means. Moreover, due to the stored mounting positions, the motion of the chuck need not be controlled by hand to successively bring the surface of each of the CSP substrates into proper position with respect to the precision imaging means.

Regarding the two claim features a) and b) noted above, the Office Action refers to the recesses (20) shown in Figures 1, 2 and 3 of Piper. However, as is clearly understood from column 5, lines 30 to 60 of Piper, the recesses (20) are provided to allow the cutting assembly (22) to complete a cut through the wafer (14) without (accidentally) contacting the chuck. The recesses (20) are not mounting position indications, and would not teach or suggest such to those of ordinary skill in the art. Furthermore, Piper does not teach or fairly suggest manually inputting of such mounting positions. Neither Freund nor Turner remedies these deficiencies of Piper. Hence, even when combined, the cited art fails to teach or fairly describe each and every feature of claim 3. There is nothing in the teachings of the cited art which would motivate those of ordinary skill to modify the teachings of the cited art by including the above described claim features.

In view of the above remarks, Applicant submits that the rejection is overcome and respectfully requests that it be withdrawn.

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Claim 4 is rejected under 35 U.S.C. § 103(a) as purportedly obvious based on Freund et al. and Turner in view of Nishida (U.S. Pat. No. 6,014,965). Applicant also respectfully traverses this rejection.

Claim 4 also concerns a method of cutting CSP substrates. This method includes the following features:

- a) the whole surface of the frame that mounts plural pieces of the CSP substrates is imaged by a whole-surface imaging means,
- b) the mounting position of each of the CSP substrates on the frame is recognized by analyzing the obtained image and is stored.

These features allow the whole-surface imaging means to be disposed above the chucking zone (indicated by the two-dotted chain lines in Fig. 1). The whole frame can be imaged by the whole-surface imaging means after the frame mounting the CSP substrates

is secured onto the chuck. The whole image then can be analyzed using a suitable format, and the mounting position of each CSP substrate on the frame can be recognized based on the analysis, and automatically stored in the storage means.

The Office Action asserts that Nishida discloses the above described features of the claim 4. However, in the method disclosed by Nishida, only one wafer (100) is mounted on the frame (101). In other words, Nishida does not teach or suggest mounting plural CSP substrates on a single frame (without them overlapping). Moreover, Nishida does not teach to recognize the mounting position of each CSP substrate on the frame. Freund and Turner also fail to teach or fairly suggest these features of claim 4. Hence, even when combined, the cited art fails to teach or fairly describe each and every feature of claim 4. There is nothing in the teachings of the cited art which would motivate those of ordinary skill to modify the teachings of the cited art by including the above described claim features.

In view of the above remarks, Applicant submit that the rejection is overcome and respectfully requests that it be withdrawn.

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Claim 7 is rejected under 35 U.S.C. § 103(a) as purportedly obvious based on Freund et al. and Turner in view of Oglesbee (U.S. Pat. No. 4,744,550).

Claim 7 has been canceled, thereby rendering this rejection moot.

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Applicant respectfully submits that this Amendment and the above remarks obviate the outstanding rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees under 37 C.F.R. §§ 1.16 or 1.17 are due in connection with this filing, please charge the fees to Deposit Account No. 02-4300; Order No. 033773.013.

If an extension of time under 37 C.F.R. § 1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The extension fee should be charged to Deposit Account No. 02-4300; Order No. 033773.013.

Respectfully submitted,

SMITH, GAMBRELL & RUSSELL, LLP

By: 

Michael A. Makuch, Reg. No. 32,263
1850 M Street, N.W., Suite 800
Washington, D.C. 20036
Telephone: (202) 263-4300
Facsimile: (202) 263-4329

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